UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,445	08/17/2006	Satoru Nemoto	062007	7483

38834 7590 12/11/2009

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER	
THEODORE, MAGALI P	

ART UNIT	PAPER NUMBER
1791	

NOTIFICATION DATE	DELIVERY MODE
12/11/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

Office Action Summary	Application No.	Applicant(s)	
	10/564,445	NEMOTO ET AL.	
	Examiner	Art Unit	
	Magali P. Théodore	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *1,3,4,7 and 8* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,5,6 and 9-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's amendment filed July 30, 2009 was received.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2, 5-6 and 9-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Amended **claims 2**, **10**-**11**, **13**-**14** and **16**-**18** recite a "following area" where the paths of the holding mechanism and the molding die "substantially overlap." While the examiner sees the overlap in figure 4, the examiner could not find support in the specification for the concept of a following area. Figure 4 has labeled "following *zone*" (emphasis added) with a double arrow, but that zone is not bounded and it is not at all clear that "following zone" coincides or even includes the a place of overlap between the two paths.

Amended **claim 13** recites that "the support is biased outward with respect to a wheel on which the holding mechanism is attached." The examiner could not find language in the text of the specification to support this concept. Nor could the examiner locate a part labeled "support" in the drawings, so the examiner could not conclude from the drawings that the inventors possessed this concept at the time of filing.

Amended **claim 15** recites that "the holding mechanism is supported by an extension means provided on a conveying media between two circular paths." The examiner could not find any language relating the conveying media's position to two circular paths, nor could the examiner find this in a drawing.

If Applicant believes that the specification provides support for the subject matter regarded as new matter above, Applicant is respectfully asked to provide the page and line numbers where the support is found.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Amended **claim 15** recites that "the holding mechanism is supported by an extension means provided on a conveying media between two circular paths." It is not at all clear what is meant by this. There appear to be only two circular paths in the disclosure, the second of which is assigned in claim 2 to the holding mechanism. Figure 2 shows that the two circular paths overlap. It is not clear how the conveying media that supports the holding mechanism can be *between* the two circular paths.

Amended claim 15 also recites "the second path of the holding mechanism substantially overlaps with the first path of the molding die by making a circular path concentric with the circular path traced by the molding die." It is not at all clear how two concentric circles can overlap or intersect.

Claim Rejections - 35 USC § 102

Claims 2, 5-6, 10 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito et al. (US 2002/0088767 A1), henceforth **Saito**.

Regarding **claim 2**, Saito teaches moving a molding die (figure 9:32) along a first path (figure 9, rightmost arc) and moving a holding mechanism (figure 9:23-24) along a second path (figure 9, path swept by holding mechanism as wheel rotates clockwise). The movements are synchronized (figure 7:arrows in 20 and 30) so that the paths substantially overlap where the molding die and the holding mechanism meet (figure 9 position M). That place of overlap is designated "following area;" the holding mechanism carries the drop to that place and transfers the drop (figure 9:18) there to the mold.

Regarding **claim 5**, Saito teaches, during the transferring step, the holding mechanism forcibly inserting the drop (throwing, 0125: last line) into the concavity (figure 11:43) of the female die (figure 9:32).

Regarding **claim 6**, Saito teaches plural holding mechanisms (figure 9:23-24) and plural male and female dies (0109). Saito teaches that both paths are rotary and circular (figure 7:arrows in 20 and 30).

Regarding **claim 10**, Saito teaches that when the holding mechanism approaches the rotating die, the holding mechanism tilts at a specific angle to the radial direction of the turret (0105: middle). The radial direction of the turret is normal to the tangent of circular path of the holding mechanism. If the holding mechanism is tilted to the normal of the circle's radius, then the holding mechanism is also necessarily tilted with respect to the tangent.

Regarding **claim 19**, Saito teaches molding a preform (0015).

Claim Rejections - 35 USC § 103

Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Saito** as applied to claim 2 above, and further in view of Winter et al. (US 6,152,723), henceforth **Winter**.

Regarding **claim 9**, Saito teaches that both paths are circular (figure 7:arrows in 20 and 30). Saito does not teach that the holding mechanism's path has a variable radius. Winter teaches a holding mechanism (figure 7:45) that moves along a path with a variable radius (figure 7: bottom of circle). That variation is allowed so that the holding mechanism can reach down and pick up the drop (figure 7:1) before deposit it at its destination (figure 7:4). Therefore, it would have been obvious to one of ordinary skill in the art to allow Saito's holding mechanism a path of variable radius in order to give it the flexibility to move meet other devices in order to perform other steps of the method, of which picking up the drop as Winter teaches is just one example. Alternatively, it would have been obvious to one of ordinary skill in the art to give Saito's holding mechanism a

path of variable radius in order to achieve predictable results (flexibility of movement) with a reasonable expectation of success.

Regarding **claim 11**, Saito does not teach a guide or a cam. However, Winter teaches a holding mechanism (figure 7:45) that moves along a guide (figure 7: rail). The holding mechanism has a cam follower (figure 7:54) that follows a cam (figure 7:55). Therefore it would have been obvious to one of ordinary skill in the art to combine Winter's use of guide, cam and cam follower with the steps taught by Saito to achieve predictable results with a reasonable expectation of success. The placement of the cam outside or inside the drop supply is an obvious matter of engineering design choice and does not impart patentable distinction to the claim.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Saito** in view of **Winter** as applied to claim 11 above, and further in view of Suzuki et al. (US 4,312,437), henceforth **Suzuki**.

Regarding **claim 12**, Saito does not teach oscillation. However, Suzuki teaches using oscillation to help release the work from the machine (6:6-9). Therefore, it would have been obvious to one of ordinary skill in the art to have Saito's mechanism oscillate as it approaches the die because Suzuki teaches using oscillation to help release the work. *Alternatively*, it would have been obvious to one of ordinary skill in the art to combine Suzuki's oscillation with the steps taught by Saito in order to achieve predictable results with a reasonable expectation of success.

Claim 13/11 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Saito** in view of **Winter** as applied to claim 11 above, and further in view of **Choinski** (US 2002/0093126 A1).

Regarding **claims 13/11,** Saito teaches that the holding mechanism abuts the die (figure 9:M) . Winter teaches that the cam follower (figure 7:54) abuts the cam (figure 7:55).

Saito does not teach a support. However, Choinski teaches supporting a holding mechanism with a support (figure 12:71-73). The support moves inward and outward (figures 12-14) along a guide (figure 12:74). As the support moves, the angle between the guide and the support is adjusted (figures 12-14). The holding mechanism does not move outward from the center of rotation (figure 11). Therefore it would have been obvious to one of ordinary skill in the art to combine these functional features taught by Choinski with the steps taught by Saito in order to achieve predictable results with a reasonable expectation of success.

Claim 13/12 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Saito** in view of **Winter** and **Suzuki** as applied to claim 12 above, and further in view of **Choinski**.

Regarding **claims 13/12,** Saito teaches that the holding mechanism abuts the die (figure 9:M) . Winter teaches that the cam follower (figure 7:54) abuts the cam (figure 7:55).

Saito does not teach a support. However, Choinski teaches supporting a holding mechanism with a support (figure 12:71-73). The support moves inward and outward (figures 12-14) along a guide (figure 12:74). As the support moves, the angle between the guide and the support is adjusted (figures 12-14). The holding mechanism does not move outward from the center of rotation (figure 11). Therefore it would have been obvious to one of ordinary skill in the art to combine these functional features taught by Choinski with the steps taught by Saito in order to achieve predictable results with a reasonable expectation of success.

Choinski's support is not biased outward from a wheel to which the holding mechanism attached. However, Saito's holding mechanism (figure 9:23-24) faces outward from the wheel to which it is attached. Therefore it would have been obvious to one of ordinary skill in the art to conserve the orientation of Saito's holding mechanism by having the added support face outward from the wheel as well. *Alternatively*, there are a finite number of options for orienting the support: inward or outward. Therefore, given that finite number of options, it would have been obvious to one of ordinary skill in the art to try orienting the support outward.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Saito** as applied to claim 2 above, and further in view of Vogel et al. (US 6,514,448 B1), henceforth **Vogel**.

Regarding **claim 14**, Saito does not teach a fixing member or a controlling guide. Vogel teaches a holding mechanism (figure 8:19) is supported by a fixing member

(figure 8:20) which moves in a second path in an eccentric circle. The fixing member's movement is controlled by a controlling guide (figure 8:31-33). The controlling guide is on a cam. Therefore, it would have been obvious to one of ordinary skill in the art to combine these functions taught by Vogel with the steps taught by Saito to achieve predictable results with a reasonable expectation of success.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Saito** in view of **Vogel** as applied to claim 14 above, and further in view of **Zoppas** (US 6,422,379 B1).

Regarding **claim 15**, Saito teaches that each of the molding die and the holding mechanism travels on a circular path. The Saito does not teach radial extension means. However, Zoppas teaches transporting preforms (figure 1:1) using a radial extension means (figure 3:31) on a conveying media on a wrapping driving device (figure 1:2). Therefore, it would have been obvious to one of ordinary skill in the art to combine the functions taught by Zoppas with the steps taught by Saito in order to achieve predictable results with a reasonable expectation of success.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Saito** in view of **Vogel** as applied to claim 14 above, and further in view of **Winter** and **Choinski**.

Regarding **claim 16**, Saito teaches that the holding mechanism abuts the die (figure 9:M) .

Saito does not teach a cam or a cam follower. However, Winter teaches a cam follower (figure 7:54) that abuts the cam (figure 7:55). Therefore it would have been obvious to one of ordinary skill in the art to combine the use of a cam and cam follower with the steps taught by Saito in order to achieve predictable results with a reasonable expectation of success.

Saito does not teach a support. However, Choinski teaches supporting a holding mechanism with a support (figure 12:71-73). The support is biased or held on with a force toward the outside of a wheel to which the holding mechanism is attached (figure 11). The support moves inward and outward (figures 12-14) along a guide (figure 12:74). As the support moves, the angle between the guide and the support is adjusted (figures 12-14). The holding mechanism does not move outward from the center of rotation (figure 11). Therefore it would have been obvious to one of ordinary skill in the art to combine these functional features taught by Choinski with the steps taught by Saito in order to achieve predictable results with a reasonable expectation of success.

Regarding **claim 17**, Saito teaches that the path around the eccentric circle is formed by vertical rotation (figure 9; the words "upper" and "descend" indicate that both circles are in the vertical plane).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Saito** as applied to claim 2 above.

Regarding **claim 18**, Saito does not teach adjusting the velocity of the holding mechanism. However, since Saito's method requires the holding mechanism and the

die to arrive at the same place at the same time, it would have been obvious to one of ordinary skill in the art to arrange that coincidence by adjusting the velocity of the holding mechanism to that of the molding die.

Response to Arguments

Applicant's arguments filed July 30, 2009 have been fully considered but they are not persuasive.

Regarding claim 2, Applicant argues that Saito's first and second paths (the paths of the molding die and the path of the holding mechanism do not overlap. In response to Applicant's argument, Applicant's specification does not provide any special definition of "overlap." In the absence of a special definition, the examiner has interpreted the term broadly to mean any extent of intersection. Saito's figure 9 shows the holding mechanism on top of the mold (figure 9:M); in that place the paths overlap.

Regarding claim 2, Applicant argues that Saito does not teach or suggest a following area. In response to Applicant's argument, as explained above, Saito teaches a place of overlap. That place has been designated the following area. Applicant has not claimed any structural or spatial features to distinguish the claimed following area from what Saito has disclosed.

Regarding claim 12, Applicant argues that Suzuki's rocking "has nothing to do with oscillation." In response to Applicant's argument, Suzuki teaches an "oscillating drive" (6:6) and rocking is a type of oscillation.

Regarding claim 13/11, Applicant argues that Choinski's "support does not move along the guide whose angle is varied to set at a specific angle toward the normal line." In response to Applicant's argument, the angle of Choinski's support can be seen to vary with regard to the normal of its circular path in figure 11 from the 3 o'clock position to the 6 o'clock position. A the 6 o'clock position, the guide is oblique to the normal, at a specific angle.

Regarding claim 14, Applicant argues that Vogel does not teach a path around the eccentric circle. In response to Applicant's argument, Applicant has neither provided a special definition of "eccentric circle" nor designated "the eccentric circle" in either the text or the drawings of the specification. In the absence of any specific teaching from the specification, the examiner has broadly interpreted the phrase "eccentric circle" to mean a circle outside the center. In this case, the second path (the path of the holding mechanism) is outside the center of the first path (the path of the molding die).

Regarding claim 15, Applicant argues that "the radial extension means has nothing to do with the overlapping of paths." In response to Applicant's argument, the overlapping of paths is addressed in the rejection of claim 2.

Regarding claim 16, Applicant argues that Winter's cam does not make the two paths overlap. In response to Applicant's argument, the overlapping of paths is addressed in the rejection of claim 2.

Also regarding claim 16, Applicant argues that Choinski's support does not move along the guide. In response to Applicant's argument, looking at figure 12, the support

is all the way at the top of the guide. In figure 13, the support is approaching the middle of the guide. In figure 14, the support is near the bottom of the guide. That downward movement on the page represents an outward movement with respect to the circular path. In that way, the support moves inward and outward along the guide.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magali P. Théodore whose telephone number is (571)

270-3960. The examiner can normally be reached on Monday through Friday 9:00 a.m. to 6:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina A. Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Magali P. Théodore/
Examiner, Art Unit 1791

/Christina Johnson/

Supervisory Patent Examiner, Art Unit 1791